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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/756,835

01/13/2004

Axel Knauff

KNAUFF-5

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EXAMINER

BARRERA, RAMON M

ART UNIT

PAPER NUMBER

2832

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DELIVERY MODE

05/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/756,835	Applicant(s) KNAUFF ET AL.	
	Examiner RAMON M. BARRERA	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/27/08.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,6,8-14 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) 9,11 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,8,10,12-14,17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Offringa, et al.

Offringa's fig. 7 discloses a nonmagnetic first carrier (18,20 (col. 5, line 1) inherently adjacent an air gap of a synchronous motor (brushless dc motor) having axially arranged magnets 4 attached directly to a side of the first carrier so that the first carrier is inherently provided between the air gap and the permanent magnets. The prefabricated module shown in figs 5-7 is inherently attached to shaft 22 by material interconnecting engagement.

3. Claims 1, 5, 6, 10, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by ABB, (WO02/103882), cited on applicant's IDS.

ABB discloses a nonmagnetic carbon fiber first carrier 11 [0019] inherently adjacent an air gap of a synchronous motor [0002] having axially arranged magnets 10 attached directly to a side of the first carrier [0024] so that the first carrier is inherently provided between the air gap and the permanent magnets; the permanent magnets having a thickness at least twice the thickness of the carrier, with casting compound filling an intermediate space between neighboring permanent magnets. The

prefabricated module shown is attached to a shaft by material interconnecting engagement 22.

4. Claims 1-3, 5, 6, 10, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Akira Hosaka, cited on applicant's IDS.

Akira Hosaka's figs. 2-5 and 18-21 disclose a nonmagnetic carbon fiber first carrier sleeve (4b,5b) [0065] adjacent an air gap of a synchronous motor having magnets 12 attached directly to a side of the first carrier so that the first carrier is inherently provided between the air gap and the permanent magnets; the permanent magnets having a thickness at least twice the thickness of the carrier; second carrier 13 is made of soft magnetic material [0048]. The prefabricated module shown in figs 5-7 is inherently attached to shaft 22 by material interconnecting engagement.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over ABB, cited above, in view of Worley, et al.

ABB discloses a second carrier 12 but does not disclose whether the second carrier is made of a soft magnetic material. Worley discloses a second carrier 18 made of soft magnetic material for the purpose of acting as a backiron to reduce the reluctance of the permanent magnet circuit. Since ABB and Worley are both from the

same field of endeavor, the purpose disclosed by Worley would have been recognized in the pertinent art of ABB. It would have been obvious at the time the invention was made to a person having ordinary skill in the art for ABB's second carrier to be made of soft magnetic material for the purpose of acting as a backiron to reduce the reluctance of the permanent magnet circuit.

7. The indicated allowability of claim 8 is withdrawn in view of the reference to Akira Hosaka. Rejections based on this cited reference follows.

8. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akira Hosaka, cited above.

Akira Hosaka disclosed the first carrier material having a thickness of 1.5mm and permanent magnets having a thickness of 3-4 mm [0101,0105]. Akira Hosaka was silent regarding the thickness of the second carrier. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the claimed values and ranges, since it has been held that discovering an optimum value or range of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAMON M. BARRERA whose telephone number is (571)272-1987. The examiner can normally be reached on Monday through Friday from 11 to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ramon M Barrera/
Primary Examiner, Art Unit 2832

rmb